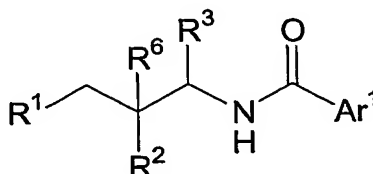


WHAT IS CLAIMED IS:

1. A compound of structural formula I:



(I)

or a pharmaceutically acceptable salt thereof, wherein;

R¹ is selected from:

- (1) C₁₋₁₀alkyl,
- (2) C₃₋₁₀cycloalkyl,
- (3) cycloheteroalkyl,
- (4) aryl, and
- (5) heteroaryl,

wherein alkyl is optionally substituted with one, two, three or four substituents independently selected from R^a, and each cycloalkyl, cycloheteroalkyl, aryl and heteroaryl are optionally substituted on a carbon or nitrogen atom with one, two, three or four substituents independently selected from R^b;

R² is selected from:

- (1) C₃₋₁₀cycloalkyl,
- (2) cycloheteroalkyl,
- (3) aryl,
- (4) heteroaryl,
- (5) -OR^d,
- (6) -NR^cR^d, and
- (7) -CO₂R^d,

wherein each alkyl is optionally substituted with one, two, three or four substituents independently selected from R^a, and each cycloalkyl, cycloheteroalkyl, aryl and heteroaryl are optionally substituted on a carbon or nitrogen atom with one, two, three or four substituents independently selected from R^b;

R³ is selected from:

- (1) hydrogen, and
- (2) C₁₋₄alkyl,

wherein alkyl is optionally substituted with one to four substituents

5 independently selected from R^a;

R⁶ is selected from:

- (1) hydrogen,
- (2) C₁₋₄alkyl,
- (3) C₂₋₄alkenyl,
- 10 (4) C₂₋₄alkynyl,
- (5) -OR^d,
- (6) halogen,
- (7) -CN,
- (8) -NR^cR^d,

15 wherein alkyl, alkenyl, and alkynyl are optionally substituted with one to four substituents independently selected from R^a

Ar¹ is selected from:

- (1) aryl, and
- (2) heteroaryl,

20 each optionally substituted on the carbon or nitrogen with one, two, or three groups independently selected from R^b;

each R^a is independently selected from:

- (1) -OR^c,
- (2) -NR^cS(O)_mR^d,
- 25 (3) -NO₂,
- (4) halogen,
- (5) -S(O)_mR^c,
- (6) -SR^c,
- (7) -S(O)₂OR^c,
- 30 (8) -S(O)_mNR^cR^d,
- (9) -NR^cR^d,
- (10) -O(CR^eR^f)_nNR^cR^d,
- (11) -C(O)R^c,
- (12) -CO₂R^c,

(13) $-\text{CO}_2(\text{CR}^{\text{e}}\text{R}^{\text{f}})_n\text{CONR}^{\text{c}}\text{R}^{\text{d}}$,

(14) $-\text{OC}(\text{O})\text{R}^{\text{c}}$,

(15) $-\text{CN}$,

(16) $-\text{C}(\text{O})\text{NR}^{\text{c}}\text{R}^{\text{d}}$,

5 (17) $-\text{NR}^{\text{c}}\text{C}(\text{O})\text{R}^{\text{d}}$,

(18) $-\text{OC}(\text{O})\text{NR}^{\text{c}}\text{R}^{\text{d}}$,

(19) $-\text{NR}^{\text{c}}\text{C}(\text{O})\text{OR}^{\text{d}}$,

(20) $-\text{NR}^{\text{c}}\text{C}(\text{O})\text{NR}^{\text{c}}\text{R}^{\text{d}}$,

(21) $-\text{CR}^{\text{c}}(\text{N}-\text{OR}^{\text{d}})$,

10 (22) CF_3 ,

(23) $-\text{OCF}_3$,

(24) $\text{C}_3\text{-8cycloalkyl}$,

(25) cycloheteroalkyl, and

(26) oxo;

15 each R^{b} is independently selected from:

(1) R^{a} ,

(2) $\text{C}_1\text{-10alkyl}$,

(3) $\text{C}_3\text{-8cycloalkyl}$,

(4) cycloheteroalkyl,

20 (5) aryl,

(6) aryl $\text{C}_1\text{-4alkyl}$,

(7) heteroaryl, and

(8) heteroaryl $\text{C}_1\text{-4alkyl}$,

wherein alkyl, cycloalkyl, cycloheteroalkyl, and heteroaryl are optionally

25 substituted with oxo, and wherein aryl and heteroaryl are optionally

substituted with $-\text{OR}^{\text{c}}$, $\text{NR}^{\text{c}}\text{R}^{\text{d}}$, or $-\text{C}(\text{O})\text{R}^{\text{c}}$;

R^{c} and R^{d} are independently selected from:

(1) hydrogen,

(2) $\text{C}_1\text{-10alkyl}$,

30 (3) $\text{C}_2\text{-10 alkenyl}$,

(4) $\text{C}_2\text{-10alkynyl}$,

(5) cycloalkyl,

(6) cycloalkyl- $\text{C}_1\text{-10alkyl}$,

(7) cycloheteroalkyl,

(8) cycloheteroalkyl-C₁₋₁₀ alkyl;

(9) aryl,

(10) heteroaryl,

(11) aryl-C₁₋₁₀alkyl, and

5 (12) heteroaryl-C₁₋₁₀alkyl, or

R^c and R^d together with the atom(s) to which they are attached form a heterocyclic ring of 4 to 7 members containing 0-2 additional heteroatoms independently selected from oxygen, sulfur and N-R^g,

10 or two -OR^c groups together with the atom(s) to which they are attached form a heterocyclic ring of 4 to 7 members containing 0-2 additional heteroatoms independently selected from oxygen, sulfur and N-R^g,

each R^c and R^d may be unsubstituted or substituted with one to three substituents selected from R^h;

R^e and R^f are independently selected from:

15 (1) hydrogen,

(2) C₁₋₁₀alkyl,

(3) C₂₋₁₀ alkenyl,

(4) C₂₋₁₀alkynyl,

(5) cycloalkyl,

20 (6) cycloalkyl-C₁₋₁₀ alkyl,

(7) cycloheteroalkyl,

(8) cycloheteroalkyl-C₁₋₁₀ alkyl,

(9) aryl,

(10) heteroaryl,

25 (11) arylC₁₋₁₀ alkyl, and

(12) heteroarylC₁₋₁₀ alkyl, or

R^e and R^f together with the carbon to which they are attached form a ring of 5 to 7 members containing 0-2 heteroatoms independently selected from oxygen, sulfur and nitrogen;

30 each R^g is independently selected from

(1) C₁₋₁₀alkyl,

(2) C₃₋₈cycloalkyl,

(3) cycloheteroalkyl,

(4) aryl,

- (5) arylC₁₋₄alkyl,
- (6) heteroaryl,
- (7) heteroarylC₁₋₄alkyl,
- (8) -S(O)_mRe^e,
- 5 (9) -C(O)Re^e,
- (10) -CO₂Re^e,
- (11) -CO₂(CRe^{rf})_nCONRe^{rf}, and
- (12) -C(O)NRe^{rf};

each R^h is independently selected from:

- 10 (1) C₁₋₁₀alkyl,
- (2) C₃₋₈cycloalkyl,
- (3) cycloheteroalkyl,
- (4) aryl,
- (5) arylC₁₋₄alkyl,
- 15 (6) heteroaryl,
- (7) heteroarylC₁₋₄alkyl,
- (8) -ORE^e,
- (9) -NReS(O)_mR^f,
- (10) -S(O)_mRe^e,
- 20 (11) -SRe^e,
- (12) -S(O)₂ORE^e,
- (13) -S(O)_mNRe^{rf},
- (14) -NRe^{rf},
- (15) -O(CRe^{rf})_nNRe^{rf},
- 25 (16) -C(O)Re^e,
- (17) -CO₂Re^e,
- (18) -CO₂(CRe^{rf})_nCONRe^{rf},
- (19) -OC(O)Re^e,
- (20) -CN,
- 30 (21) -C(O)NRe^{rf},
- (22) -NReC(O)R^f,
- (23) -OC(O)NRe^{rf},
- (24) -NReC(O)OR^f,
- (25) -NReC(O)NRe^{rf},

(26) CF₃, and

(27) -OCF₃,

m is selected from 1 and 2; and

n is selected from 1, 2, and 3;

5

provided that when R¹ is phenyl, naphthyl, or heteroaryl, R² is phenyl and R³ is hydrogen, then Ar¹ is not unsubstituted phenyl and is not mono, di or tri- substituted phenyl with an R^b substituent selected from the group consisting of halogen, hydroxy, -C₁₋₆ alkyl, phenyl, -CN, -NO₂, -CO₂H, -C(O)C₁₋₆alkyl, -CO₂C₁₋₆ alkyl, -C(O)NH₂, -C(O)NH-heterocycloalkyl, -NH₂, -NH-heterocycloalkyl, furanyl, dihydrofuranyl, pyrrolidyl, dihydropyrrolidyl, and 1,3-dioxolan; and

10

provided that when R¹ is aryl, monosubstituted with halogen, -OCH₃ or -CH₃ or optionally di-substituted with halogen, R² is aryl, optionally mono- or di- substituted with halogen, and R³ is hydrogen, then Ar¹ is not unsubstituted 4-pyridinyl; and

15

provided that when R¹ and R² are unsubstituted aryl or unsubstituted heteroaryl, and R³ is hydrogen or C₁₋₄ alkyl, then Ar¹ is substituted with at least one R^b substituent; and

20

provided that when R¹ is selected from the group consisting of unsubstituted phenyl, *para*-chlorophenyl or *para*-methoxy phenyl, R² is unsubstituted phenyl, and R³ is -CH₃, then Ar¹ is not unsubstituted phenyl, *ortho*-CO₂H monosubstituted phenyl, or 3,4-dimethoxy phenyl.

25

2. The compound according to Claim 1 wherein:

R¹ is selected from:

- (1) C₁₋₁₀alkyl,
- (2) C₃₋₁₀cycloalkyl,
- (3) cycloheteroalkyl,
- (4) aryl, and
- (5) heteroaryl,

30

wherein alky is optionally substituted with one, two, three or four substituents independently selected from R^a, and each cycloalkyl, cycloheteroalkyl, aryl

and heteroaryl are optionally substituted with one, two, three or four substituents independently selected from R^b;

R² is selected from:

- (1) C₃₋₁₀cycloalkyl,
- 5 (2) cycloheteroalkyl,
- (3) aryl,
- (4) heteroaryl,
- (5) -OR^d,
- (6) -NR^cR^d, and
- 10 (7) -CO₂R^d,

wherein each alkyl is optionally substituted with one, two, three or four substituents independently selected from R^a, and each cycloalkyl, and cycloheteroalkyl aryl and heteroaryl are optionally substituted with one, two, three or four substituents independently selected from R^b;

15 or a pharmaceutically acceptable salt thereof.

3. The compound according to Claim 2 wherein:

Ar¹ is selected from:

- (1) phenyl,
- 20 (2) naphthyl,
- (3) thienyl,
- (4) furanyl,
- (5) pyrrolyl,
- (6) oxazolyl,
- 25 (7) isoxazolyl,
- (8) 1,2,5-oxadiazolyl,
- (9) 1,2,5-thiadiazolyl,
- (10) thiazolyl,
- (11) pyrazolyl,
- 30 (12) triazolyl,
- (13) tetrazolyl,
- (14) benzothienyl,
- (15) benzofuranyl,
- (16) benzoxazolyl,
- 35 (17) benzimidazolyl,

- (18) benzothiazolyl,
(19) indanyl,
(20) indenyl,
(21) indolyl,
5 (22) imidazo[1,2-a]pyridinyl,
(23) β -carbolinyl,
(24) 5,6,7,8-tetrahydro- β -carbolinyl,
(25) tetrahydronaphthyl,
(26) 4,5,6,7-tetrahydroindazolyl,
10 (27) 2,3-dihydrobenzofuranyl,
(28) dihydrobenzopyranyl,
(29) 1,4-benzodioxanyl,
(30) pyridinyl,
(31) pyrimidinyl,
15 (32) pyrazinyl,
(33) quinolinyl,
(34) isoquinolinyl,
(35) quinazolonyl,
(36) quinazolinyl,
20 (37) 1,8-naphthyridinyl,
(38) 1,2,3,4-tetrahydro-1,8-naphthyridinyl,
(39) pyrido[3,2-b]pyridinyl,
(40) pyrazolo[2,3-a]pyrimidinyl,
(41) pyrido[1,2-a]pyrimidinyl,
25 (42) pyrido[1,2-a]pyrimidonyl,
(43) benzopyrimidinyl,
(44) imidazolyl, and
(45) imidazolonyl,
each optionally substituted with one, two, or three groups independently
30 selected from R^b;
or a pharmaceutically acceptable salt thereof.

4. The compound according to Claim 3 wherein:
R³ is C₁₋₄alkyl, optionally substituted with one to four substituents independently
35 selected from R^a;

R⁶ is selected from:

- (1) hydrogen,
- (2) methyl,
- (3) hydroxyl,
- 5 (4) halogen, and
- (5) -CN,

wherein methyl is optionally substituted with one to three R^a substituents;

Ar¹ is selected from:

- (1) phenyl,
- 10 (2) naphthyl,
- (3) thienyl,
- (4) isoxazolyl,
- (5) 1,2,5-oxadiazolyl,
- (6) thiazolyl,
- 15 (7) pyrazolyl,
- (8) triazolyl,
- (9) tetrazolyl,
- (10) benzofuranyl,
- (11) benzoxazolyl,
- 20 (12) benzimidazolyl,
- (13) benzothiazolyl,
- (14) imidazo[1,2-a]pyridinyl,
- (15) 5,6,7,8-tetrahydro- β -carbolinyl,
- (16) 4,5,6,7-tetrahydroindazolyl,
- 25 (17) pyridinyl,
- (18) pyrimidinyl,
- (19) pyrazinyl,
- (20) quinolinyl,
- (21) isoquinolinyl,
- 30 (22) quinazolonyl,
- (23) quinazolinyl,
- (24) 1,8-naphthyridinyl,
- (25) 1,2,3,4-tetrahydro-1,8-naphthyridinyl,
- (26) pyrido[3,2-b]pyridinyl,

(27) pyrazolo[2,3-a]pyrimidinyl,

(28) pyrido[1,2-a]pyrimidinyl,

(29) pyrido[1,2-a]pyrimidonyl,

(30) benzopyrimidinyl,

5 (31) imidazolyl, and

(32) imidazolonyl,

each optionally substituted with one, two, or three groups independently selected from R^b;

each R^a is independently selected from:

10 (1) -OR^c,

(2) halogen,

(3) -S(O)_mR^c,

(4) -SR^c,

(5) -S(O)₂OR^c,

15 (6) -S(O)_mNR^cR^d,

(7) -NR^cR^d,

(8) -C(O)R^c,

(9) -CO₂R^c,

(10) -CN,

20 (11) -C(O)NR^cR^d,

(12) CF₃,

(13) -OCF₃,

(14) C₃₋₈cycloalkyl,

(15) cycloheteroalkyl, and

25 (16) oxo;

each R^b is independently selected from:

(1) R^a,

(2) C₁₋₁₀alkyl,

(3) cycloheteroalkyl,

30 (4) aryl,

(5) arylC₁₋₄alkyl,

(6) heteroaryl, and

(7) heteroarylC₁₋₄alkyl,

wherein alkyl, cycloalkyl, cycloheteroalkyl, heteroaryl are optionally substituted with oxo, and wherein aryl and heteroaryl are optionally substituted with -OR^c, NR^cR^d, or -C(O)R^c;

R^c and R^d are independently selected from:

- 5 (1) hydrogen,
 (2) C₁₋₁₀alkyl,
 (3) cycloalkyl,
 (4) cycloheteroalkyl,
 (5) aryl,
10 (6) heteroaryl, or

R^c and R^d together with the atom(s) to which they are attached form a heterocyclic ring of 4 to 7 members containing 0-2 additional heteroatoms independently selected from oxygen, sulfur and N-R_g,

- or two -OR^c groups together with the atom(s) to which they are attached form a
15 heterocyclic ring of 4 to 7 members containing 0-2 additional heteroatoms
independently selected from oxygen, sulfur and N-R_g,
each R^c and R^d may be unsubstituted or substituted with one to three substituents
selected from R^h;
or a pharmaceutically acceptable salt thereof.

20

5. The compound according to Claim 4 wherein:

R¹ and R² are independently selected from:

- (1) phenyl, and
 (2) pyridyl,
25 each optionally substituted with one to four substituents independently selected from
R^b;
R³ is C₁₋₄alkyl, wherein alkyl is optionally substituted with one to four substituents
independently selected from R^a;
R⁶ is selected from:
30 (1) hydrogen,
 (2) methyl,
 (3) hydroxyl,
 (4) halogen, and
 (5) -CN;
35 each R^a is independently selected from:

- (1) $-OR^c$,
- (2) halogen,
- (3) $-S(O)_mR^c$,
- (4) $-NR^cR^d$,
- 5 (5) $-C(O)R^c$,
- (6) $-CO_2R^c$, and
- (7) oxo;

or a pharmaceutically acceptable salt thereof.

10 6. The compound according to Claim 5 wherein:

R^1 and R^2 are independently selected from:

- (1) phenyl,
- (2) 4-fluorophenyl,
- (3) 2-chlorophenyl,
- 15 (4) 3-chlorophenyl,
- (5) 4-chlorophenyl,
- (6) 4-cyanophenyl,
- (7) 4-methylphenyl,
- (8) 4-isopropylphenyl,
- 20 (9) 4-biphenyl,
- (10) 4-bromophenyl,
- (11) 4-iodophenyl,
- (12) 2,4-dichlorophenyl, and
- (13) 2-chloro-4-fluorophenyl;

25 or a pharmaceutically acceptable salt thereof.

7. The compound according to Claim 6 wherein:

R^1 and R^2 are independently selected from phenyl and 4-chlorophenyl;

R^3 is methyl, wherein methyl is optionally substituted with one to three substituents

30 independently selected from R^a ;

or a pharmaceutically acceptable salt thereof.

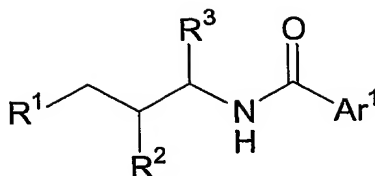
8. A compound selected from:

- (1) N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-benzofuran-2-carboxamide;
- (2) N-[2,3-bis(4-chlorophenyl)-1-methylpropyl]-3-chloro-2-naphthamide;
- (3) N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-isoxazole-5-carboxamide;
- 5 (4) N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-pyrido[3,2-b]pyridine-2-carboxamide;
- (5) N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-pyrazole-3-carboxamide;
- (6) N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-thiazole-5-carboxamide;
- (7) N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-nicotinamide;
- 10 (8) 2-(1-tetrazolyl)-N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-benzamide;
- (9) 3-(1-tetrazolyl)-N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-benzamide;
- (10) 4-(1-tetrazolyl)-N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-benzamide;
- (11) 5-methyl-N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-thiazole-4-carboxamide;
- 15 (12) 2-phenyl-N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-benzamide;
- (13) N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-pyrazine-2-carboxamide;
- (14) 3-(1-(3,5-dimethyl-pyrazolyl))-N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-benzamide;
- (15) 4-(1-(pyrrolidin-2-one))-N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-benzamide;
- 20 (16) 3-(1-(imidazolidin-2-one))-N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-benzamide;
- (17) 4-phenyl-N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-benzamide;
- (18) 6-bromo-N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-picolinamide;
- 25 (19) N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-isonicotinamide;
- (20) N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-picolinamide;
- (21) 4-methyl-N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-1,2,5-oxadiazole-3-carboxamide;
- (22) 3-(1-(pyrrolidin-2-one))-N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-benzamide;
- 30 (23) 2-bromo-N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-isonicotinamide;
- (24) 3-phenyl-N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-benzamide;
- (25) N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-pyrimidine-4-carboxamide;
- (26) 4-(1-pyrazolyl)-N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-benzamide;
- 35 (27) 2-(1-pyrazolyl)-N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-benzamide;

- (28) 5,6,7,8-tetrahydro-N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-carbazole-3-carboxamide;
- (29) N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-1H-quinazolin-2-one-4-carboxamide;
- 5 (30) N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-benzoxazole-2-carboxamide;
- (31) N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-pyrazolo[2,3-a]pyrimidine-6-carboxamide;
- (32) 2,4-dimethyl-N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-pyrazolo[2,3-a]pyrimidine-6-carboxamide;
- 10 (33) 4-(1-piperidinyl)-N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-benzamide;
- (34) N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-pyrimidine-5-carboxamide;
- (35) N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-pyrido(1,2-a)pyrimidine-4-one-5-carboxamide;
- (36) 4,5,6,7-tetrahydro-N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-indazole-3-carboxamide;
- 15 (37) 5-fluoro-N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-benzimidazole-2-carboxamide;
- (38) 5-phenyl-N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-pyrazole-3-carboxamide;
- 20 (39) 1,2,3,4-tetrahydro-N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-1,8-naphthyridine-7-carboxamide;
- (40) 1-methyl-3-ethyl-N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-pyrazole-5-carboxamide;
- (41) 1-methyl-3-propyl-N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-pyrazole-5-carboxamide;
- 25 (42) N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-quinoline-5-carboxamide;
- (43) N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-imidazo(1,2-a)pyridine-2-carboxamide;
- (44) N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-quinoline-4-carboxamide;
- 30 (45) 4-bromo-N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-nicotinamide;
- (46) N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-isoquinoline-8-carboxamide;
- (47) 3-bromo-N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-picolinamide;
- (48) N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-isoquinoline-5-carboxamide;
- (49) 4-(2-formyl-phenyl)-N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-benzamide;

- (50) 4-(2-hydroxymethyl-phenyl)-N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-benzamide;
- (51) 4-(2-aminophenyl)-N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-benzamide;
- (52) N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-2(3H)-imidazolone-4-carboxamide;
- 5 (53) 3-(1-tetrazolyl)-N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-isonicotinamide;
- (54) 3,4-(ethylenedioxy)-N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-thiophene-2-carboxamide;
- (55) 1-isopropyl-N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-pyrazole-4-carboxamide;
- 10 (56) 5-bromo-N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-picolinamide;
- (57) N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-1,8-naphthyridine-2-carboxamide;
- (58) N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-benzothiazole-2-carboxamide;
- 15 (59) N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-benzimidazole-2-carboxamide;
- (60) 5-chloro-2-(2-(1-pyrrolyl)ethyl)-N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-benzamide;
- (61) 2-(2-phenylethyl)-N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-benzamide;
- (62) N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-naphthylene-2-carboxamide;
- 20 (63) N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-quinoline-5-carboxamide;
- (64) N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-naphthylene-1-carboxamide;
- (65) N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-benzamide;
- (66) 2-chloro-N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-benzamide;
- (67) 3-chloro-N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-benzamide;
- 25 (68) 4-chloro-N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-benzamide;
- (69) 3,5-dichloro-N-(2,3-bis(4-chlorophenyl)-1-methylpropyl)-isonicotinamide;
- (70) N-[2-(3-pyridyl)-3-(4-chlorophenyl)-1-methylpropyl]-benzamide;
- (71) N-[2-(2-pyridyl)-3-(4-chlorophenyl)-1-methylpropyl]-benzamide;
- (72) N-[2-(4-pyridyl)-3-(4-chlorophenyl)-1-methylpropyl]-benzamide; and
- 30 (73) N-[3-(3-chloro-2-pyridyl)-2-phenyl-1-methylpropyl]-benzamide;
- or a pharmaceutically acceptable salt thereof.

9. A compound of structural formula IA:



(IA)

or a pharmaceutically acceptable salt thereof, wherein;

R¹ is selected from:

- 5 (1) aryl, and
 (2) heteroaryl,

wherein aryl and heteroaryl are optionally substituted on the carbon or nitrogen with one to four substituents independently selected from R^b;

R² is selected from:

- 10 (1) aryl, and
 (2) heteroaryl,

wherein aryl and heteroaryl are optionally substituted on the carbon or nitrogen with one to four substituents independently selected from R^b;

R³ is selected from:

- 15 (1) hydrogen, and
 (2) C₁₋₄alkyl,

wherein alkyl is optionally substituted with one to four substituents independently selected from R^a;

Ar¹ is selected from:

- 20 (1) aryl, and
 (2) heteroaryl,

each optionally substituted on the carbon or nitrogen with one, two, or three groups independently selected from R^b;

each R^a is independently selected from:

- 25 (1) -OR^c,
 (2) -NR^cS(O)_mR^d,
 (3) -NO₂,
 (4) halogen,
 (5) -S(O)_mR^c,

- (6) $-SR^c$,
 (7) $-S(O)_2OR^c$,
 (8) $-S(O)_mNR^cR^d$,
 (9) $-NR^cR^d$,
 5 (10) $-O(CR^eR^f)_nNR^cR^d$,
 (11) $-C(O)R^c$,
 (12) $-CO_2R^c$,
 (13) $-CO_2(CR^eR^f)_nCONR^cR^d$,
 (14) $-OC(O)R^c$,
 10 (15) $-CN$,
 (16) $-C(O)NR^cR^d$,
 (17) $-NR^cC(O)R^d$,
 (18) $-OC(O)NR^cR^d$,
 (19) $-NR^cC(O)OR^d$,
 15 (20) $-NR^cC(O)NR^cR^d$,
 (21) $-CR^c(N-OR^d)$,
 (22) CF_3 ,
 (23) $-OCF_3$,
 (24) $C_{3-8}cycloalkyl$,
 20 (25) $cycloheteroalkyl$, and
 (26) oxo ;

each R^b is independently selected from:

- (1) R^a ,
 (2) $C_{1-10}alkyl$,
 25 (3) $C_{3-8}cycloalkyl$,
 (4) $cycloheteroalkyl$,
 (5) $aryl$,
 (6) $arylC_{1-4}alkyl$,
 (7) $heteroaryl$, and
 30 (8) $heteroarylC_{1-4}alkyl$,

wherein $alkyl$, $cycloalkyl$, $cycloheteroalkyl$, and $heteroaryl$ are optionally substituted with oxo , and wherein $aryl$ and $heteroaryl$ are optionally substituted with $-OR^c$, NR^cR^d , or $-C(O)R^c$;

R^c and R^d are independently selected from:

- (1) hydrogen,
(2) C₁₋₁₀alkyl,
(3) C₂₋₁₀ alkenyl,
(4) C₂₋₁₀alkynyl,
5 (5) cycloalkyl,
(6) cycloalkyl-C₁₋₁₀alkyl,
(7) cycloheteroalkyl,
(8) cycloheteroalkyl-C₁₋₁₀ alkyl;
(9) aryl,
10 (10) heteroaryl,
(11) aryl-C₁₋₁₀alkyl, and
(12) heteroaryl-C₁₋₁₀alkyl, or

R^c and R^d together with the atom(s) to which they are attached form a heterocyclic ring of 4 to 7 members containing 0-2 additional heteroatoms independently selected
15 from oxygen, sulfur and N-R^g,
or two -OR^c groups together with the atom(s) to which they are attached form a heterocyclic ring of 4 to 7 members containing 0-2 additional heteroatoms independently selected from oxygen, sulfur and N-R^g,
each R^c and R^d may be unsubstituted or substituted with one to three substituents
20 selected from R^h;

R^e and R^f are independently selected from:

- (1) hydrogen,
(2) C₁₋₁₀alkyl,
(3) C₂₋₁₀ alkenyl,
25 (4) C₂₋₁₀alkynyl,
(5) cycloalkyl,
(6) cycloalkyl-C₁₋₁₀ alkyl,
(7) cycloheteroalkyl,
(8) cycloheteroalkyl-C₁₋₁₀ alkyl,
30 (9) aryl,
(10) heteroaryl,
(11) arylC₁₋₁₀ alkyl, and
(12) heteroarylC₁₋₁₀ alkyl, or

R^e and R^f together with the carbon to which they are attached form a ring of 5 to 7 members containing 0-2 heteroatoms independently selected from oxygen, sulfur and nitrogen;

each R^g is independently selected from

- 5 (1) C_{1-10} alkyl,
- (2) C_{3-8} cycloalkyl,
- (3) cycloheteroalkyl,
- (4) aryl,
- (5) aryl C_{1-4} alkyl,
- 10 (6) heteroaryl,
- (7) heteroaryl C_{1-4} alkyl,
- (8) $-S(O)_mR^e$,
- (9) $-C(O)R^e$,
- (10) $-CO_2R^e$,
- 15 (11) $-CO_2(CR^eR^f)_nCONR^eR^f$, and
- (12) $-C(O)NR^eR^f$,

each R^h is independently selected from:

- (1) C_{1-10} alkyl,
- (2) C_{3-8} cycloalkyl,
- 20 (3) cycloheteroalkyl,
- (4) aryl,
- (5) aryl C_{1-4} alkyl,
- (6) heteroaryl,
- (7) heteroaryl C_{1-4} alkyl,
- 25 (8) $-OR^e$,
- (9) $-NR^eS(O)_mR^f$,
- (10) $-S(O)_mR^e$,
- (11) $-SR^e$,
- (12) $-S(O)_2OR^e$,
- 30 (13) $-S(O)_mNR^eR^f$,
- (14) $-NR^eR^f$,
- (15) $-O(CR^eR^f)_nNR^eR^f$,
- (16) $-C(O)R^e$,
- (17) $-CO_2R^e$,

(18) $-\text{CO}_2(\text{C}^{\text{Rf}}\text{R}^{\text{f}})_n\text{CONR}^{\text{e}}\text{R}^{\text{f}}$,

(19) $-\text{OC}(\text{O})\text{R}^{\text{e}}$,

(20) $-\text{CN}$,

(21) $-\text{C}(\text{O})\text{NR}^{\text{e}}\text{R}^{\text{f}}$,

5 (22) $-\text{NR}^{\text{e}}\text{C}(\text{O})\text{R}^{\text{f}}$,

(23) $-\text{OC}(\text{O})\text{NR}^{\text{e}}\text{R}^{\text{f}}$,

(24) $-\text{NR}^{\text{e}}\text{C}(\text{O})\text{OR}^{\text{f}}$,

(25) $-\text{NR}^{\text{e}}\text{C}(\text{O})\text{NR}^{\text{e}}\text{R}^{\text{f}}$,

(26) CF_3 , and

10 (27) $-\text{OCF}_3$,

m is selected from 1 and 2; and

n is selected from 1, 2, and 3;

15 provided that when R^1 is phenyl, naphthyl, or heteroaryl, R^2 is phenyl and R^3 is hydrogen, Ar^1 is not unsubstituted phenyl and is not mono, di or tri- substituted phenyl with an R^{b} substituent selected from the group consisting of halogen, hydroxy, $-\text{C}_{1-6}$ alkyl, phenyl, $-\text{CN}$, $-\text{NO}_2$, $-\text{CO}_2\text{H}$, $-\text{C}(\text{O})\text{C}_{1-6}$ alkyl, $-\text{CO}_2\text{C}_{1-6}$ alkyl, $-\text{C}(\text{O})\text{NH}_2$, $-\text{C}(\text{O})\text{NH}$ -heterocycloalkyl, $-\text{NH}_2$, $-\text{NH}$ -heterocycloalkyl, furanyl, dihydrofuranyl, pyrrolidyl, dihydropyrrolidyl, and 1,3-dioxolan; and

20 provided that when R^1 is aryl, monosubstituted with halogen, $-\text{OCH}_3$ or $-\text{CH}_3$ and optionally di-substituted with halogen, R^2 is aryl, optionally mono- or di- substituted with halogen, and R^3 is hydrogen, Ar^1 is not unsubstituted 4-pyridinyl; and

25 provided that when R^1 and R^2 are unsubstituted aryl or unsubstituted heteroaryl, and R^3 is hydrogen or C_{1-4} alkyl, Ar^1 is substituted with at least one R^{b} substituent; and

30 provided that when R^1 is selected from the group consisting of unsubstituted phenyl, *para*-chlorophenyl or *para*-methoxy phenyl, R^2 is unsubstituted phenyl, and R^3 is $-\text{CH}_3$, Ar^1 is not unsubstituted phenyl, *ortho*- CO_2H monosubstituted phenyl, or 3,4-dimethoxy phenyl.

10. The compound according to Claim 9 wherein:

R^1 and R^2 are independently selected from:

(1) phenyl,

(2) naphthyl, and

(3) pyridyl,

each optionally substituted with one to four substituents independently selected from R^b;

5 or a pharmaceutically acceptable salt thereof.

11. The compound according to Claim 10 wherein:

Ar¹ is selected from:

- (1) phenyl,
- 10 (2) naphthyl,
- (3) thienyl,
- (4) furanyl,
- (5) pyrrolyl,
- (6) oxazolyl,
- 15 (7) isoxazolyl,
- (8) 1,2,5-oxadiazolyl,
- (9) 1,2,5-thiadiazolyl,
- (10) thiazolyl,
- (11) pyrazolyl,
- 20 (12) triazolyl,
- (13) tetrazolyl,
- (14) benzothienyl,
- (15) benzofuranyl,
- (16) benzoxazolyl,
- 25 (17) benzimidazolyl,
- (18) benzothiazolyl,
- (19) indanyl,
- (20) indenyl,
- (21) indolyl,
- 30 (22) imidazo[1,2-a]pyridinyl,
- (23) β -carbolinyl,
- (24) 5,6,7,8-tetrahydro- β -carbolinyl,
- (25) tetrahydronaphthyl,
- (26) 4,5,6,7-tetrahydroindazolyl,
- 35 (27) 2,3-dihydrobenzofuranyl,

(28) dihydrobenzopyranyl,
(29) 1,4-benzodioxanyl,
(30) pyridinyl,
(31) pyrimidinyl,
5 (32) pyrazinyl,
(33) quinolinyl,
(34) isoquinolinyl,
(35) quinazolonyl,
(36) quinazolinyl,
10 (37) 1,8-naphthyridinyl,
(38) 1,2,3,4-tetrahydro-1,8-naphthyridinyl,
(39) pyrido[3,2-b]pyridinyl,
(40) pyrazolo[2,3-a]pyrimidinyl,
(41) pyrido[1,2-a]pyrimidinyl,
15 (42) pyrido[1,2-a]pyrimidonyl,
(43) benzopyrimidinyl,
(44) imidazolyl, and
(45) imidazolonyl,
each optionally substituted with one, two, or three groups independently
20 selected from R^b;
or a pharmaceutically acceptable salt thereof.

12. The compound of claim 11 wherein:

R³ is selected from:

- 25 (1) hydrogen, and
(2) C₁₋₄alkyl,

wherein alkyl is optionally substituted with one to four substituents independently
selected from R^a;

Ar¹ is selected from:

- 30 (1) phenyl,
(2) naphthyl,
(3) thienyl,
(4) isoxazolyl,
(5) 1,2,5-oxadiazolyl,
35 (6) thiazolyl,

- (7) pyrazolyl,
 (8) triazolyl,
 (9) tetrazolyl,
 (10) benzofuranyl,
 5 (11) benzoxazolyl,
 (12) benzimidazolyl,
 (13) benzothiazolyl,
 (14) imidazo[1,2-a]pyridinyl,
 (15) 5,6,7,8-tetrahydro- β -carbolinyl,
 10 (16) 4,5,6,7-tetrahydroindazolyl,
 (17) pyridinyl,
 (18) pyrimidinyl,
 (19) pyrazinyl,
 (20) quinolinyl,
 15 (21) isoquinolinyl,
 (22) quinazolonyl,
 (23) quinazolinyl,
 (24) 1,8-naphthyridinyl,
 (25) 1,2,3,4-tetrahydro-1,8-naphthyridinyl,
 20 (26) pyrido[3,2-b]pyridinyl,
 (27) pyrazolo[2,3-a]pyrimidinyl,
 (28) pyrido[1,2-a]pyrimidinyl,
 (29) pyrido[1,2-a]pyrimidonyl,
 (30) benzopyrimidinyl,
 25 (31) imidazolyl, and
 (32) imidazolonyl,
 each optionally substituted with one, two, or three groups independently
 selected from R^b;
 each R^a is independently selected from:
 30 (1) -OR^c,
 (2) halogen,
 (3) -S(O)_mR^c,
 (4) -SR^c,
 (5) -S(O)₂OR^c,
 35 (6) -S(O)_mNR^cR^d,

- (7) $-NR^cR^d$,
 (8) $-C(O)R^c$,
 (9) $-CO_2R^c$,
 (10) $-CN$,
 5 (11) $-C(O)NR^cR^d$,
 (12) CF_3 ,
 (13) $-OCF_3$,
 (14) C_{3-8} cycloalkyl,
 (15) cycloheteroalkyl, and
 10 (16) oxo;

each R^b is independently selected from:

- (1) R^a ,
 (2) C_{1-10} alkyl,
 (3) cycloheteroalkyl,
 15 (4) aryl,
 (5) aryl C_{1-4} alkyl,
 (6) heteroaryl, and
 (7) heteroaryl C_{1-4} alkyl,

wherein alkyl, cycloalkyl, cycloheteroalkyl, heteroaryl are optionally
 20 substituted with oxo, and wherein aryl and heteroaryl are optionally
 substituted with $-OR^c$, NR^cR^d , or $-C(O)R^c$;

R^c and R^d are independently selected from:

- (1) hydrogen,
 (2) C_{1-10} alkyl,
 25 (3) cycloalkyl,
 (4) cycloheteroalkyl,
 (5) aryl,
 (6) heteroaryl, or

R^c and R^d together with the atom(s) to which they are attached form a heterocyclic
 30 ring of 4 to 7 members containing 0-2 additional heteroatoms independently selected
 from oxygen, sulfur and N-R_G,
 or two $-OR^c$ groups together with the atom(s) to which they are attached form a
 heterocyclic ring of 4 to 7 members containing 0-2 additional heteroatoms
 independently selected from oxygen, sulfur and N-R_G,

each R^c and R^d may be unsubstituted or substituted with one to three substituents selected from R^h;
or a pharmaceutically acceptable salt thereof.

5 13. The compound according to Claim 12, wherein:

R¹ and R² are independently selected from:

- (1) phenyl, and
- (2) pyridyl,

each optionally substituted with one to four substituents independently selected from R^b;

10 R³ is C₁₋₄alkyl, wherein alkyl is optionally substituted with one to four substituents independently selected from R^a;

each R^a is independently selected from:

- (1) -OR^c,
- 15 (2) halogen,
- (3) -S(O)_mR^c,
- (4) -NR^cR^d,
- (5) -C(O)R^c,
- (6) -CO₂R^c, and
- 20 (7) oxo;

or a pharmaceutically acceptable salt thereof.

14. The compound according to Claim 13, wherein:

R¹ and R² are independently selected from:

- 25 (1) phenyl,
- (2) 4-fluorophenyl,
- (3) 2-chlorophenyl,
- (4) 3-chlorophenyl,
- (5) 4-chlorophenyl,
- 30 (6) 4-cyanophenyl,
- (7) 4-methylphenyl,
- (8) 4-isopropylphenyl,
- (9) 4-biphenyl,
- (10) 4-bromophenyl,

- (11) 4-iodophenyl,
- (12) 2,4-dichlorophenyl, and
- (13) 2-chloro-4-fluorophenyl;

or a pharmaceutically acceptable salt thereof.

5

15. The compound according to Claim 14 wherein:

R¹ and R² are independently selected from phenyl and 4-chlorophenyl;

R³ is methyl, wherein methyl is optionally substituted with one to three substituents independently selected from R^a;

10 or a pharmaceutically acceptable salt thereof.

16. A composition comprising a compound according to Claim 1 and a pharmaceutically acceptable carrier.

15

17. A composition comprising a compound according to Claim 8 and a pharmaceutically acceptable carrier.

18. A method of preventing obesity in a person at risk for obesity

comprising administration to said person of about 0.001 to about 100 mg/kg of a

20

compound according to Claim 1.

19. A method of preventing obesity in a person at risk for obesity

comprising administration to said person of about 0.001 to about 100 mg/kg of a

compound according to Claim 8.

25

20. A method of treating a disease mediated by the Cannabinoid-1

receptor comprising administration of a therapeutically effective amount of a

compound of Claim 1 to a patient in need of such treatment.

30

21. The method according to Claim 20 wherein the disease

mediated by the Cannabinoid-1 receptor is selected from: psychosis, memory deficit, cognitive disorders, migraine, neuropathy, neuro-inflammatory disorders, cerebral vascular accidents, head trauma, anxiety disorders, stress, epilepsy, Parkinson's disease, schizophrenia, substance abuse disorders, constipation, chronic intestinal

pseudo-obstruction, cirrhosis of the liver, asthma, obesity, and other eating disorders associated with excessive food intake.

22. The method according to Claim 21 wherein the disease
5 mediated by the Cannabinoid-1 receptor is an eating disorder associated with excessive food intake.

23. The method according to Claim 22 wherein the eating disorder
10 associated with excessive food intake is selected from obesity, bulimia nervosa, and compulsive eating disorders.

24. The method according to Claim 23 wherein the eating disorder
associated with excessive food intake is obesity.

15 25. The use of a compound according to Claim 1 for the manufacture of a medicament useful for the treatment of a disease mediated by the Cannabinoid-1 receptor in a human patient in need of such treatment.

26. The use according to Claim 25 wherein the disease mediated by
20 the Cannabinoid-1 receptor is selected from: psychosis, memory deficit, cognitive disorders, migraine, neuropathy, neuro-inflammatory disorders, cerebral vascular accidents, head trauma, anxiety disorders, stress, epilepsy, Parkinson's disease, schizophrenia, substance abuse disorders, constipation, chronic intestinal pseudo-
25 obstruction, cirrhosis of the liver, asthma, obesity, and other eating disorders associated with excessive food intake.

27. The use according to Claim 26 wherein the disease mediated by
the Cannabinoid-1 receptor is an eating disorder associated with excessive food
intake.

30

28. The use according to Claim 27, wherein the eating disorder
associated with excessive food intake is selected from obesity, bulimia nervosa, and
compulsive eating disorders.

29. The use according to Claim 28 wherein the eating disorder associated with excessive food intake is obesity.

5 30. The use of a compound according to Claim 1 for the manufacture of a medicament useful for the prevention of obesity in a person at risk therefore.